Claims

1. Anode-supported fuel cell (1) comprising an anode support (2), an anode layer (3), an electrolyte layer (4) and a cathode layer (5), said anode support (2) being provided with a stress compensation layer (6) on the side opposite the anode layer, characterised in that said stress compensation layer (6) is a porous layer (7) extending without essential interruptions and a porous layer with a thickness of at most 100 μm that is electron-conducting in the operational state is applied to said stress compensation layer on the side away from the anode support.

2. Fuel cell according to Claim 1, wherein the electron-conducting layer has a thickness of 10 - 20 μm in the operational state.

3. Fuel cell according to one of the preceding claims, wherein said electron-conducting layer (7) comprises a nickel/nickel oxide layer.

4. Fuel cell according to one of the preceding claims, wherein the stress compensation layer is provided with a regular pattern of holes extending from the substrate to the electron-conducting layer, said holes having an internal opening of at most 1 mm.

5. Fuel cell according to Claim 4, wherein said holes are hexagonal.

6. Fuel cell according to one of the preceding claims, wherein said stress compensation layer has a porosity of at most 40 %.

7. Method for the production of an anode-supported fuel cell, comprising the production of an anode support with the anode and electrolyte applied thereto, application of the cathode layer thereto, followed by sintering of the assembly thus obtained, the production of the anode support comprising the provision of a green substrate, application of the anode layer and an electrolyte thereto, a stress compensation layer being applied to the substrate on the side away from the anode layer, characterised in that said stress compensation layer is applied extending uninterrupted over the substrate and after sintering an electron-conducting porous layer is applied thereto, after which the substrate and the

layer applied thereto are subjected to a sintering treatment.

8. Method according to Claim 7, wherein said sintering treatment is carried out at 1300 - 1400 °C.

9. Method according to one of Claims 7 or 8, wherein said stress compensation layer is applied to said substrate by screen printing.

10. Method according to one of Claims 7 - 9, wherein said stress compensation layer is provided with openings having a maximum size of 1 mm extending through said layer.